

Appl. No. 10/612,548
Amdt. Dated March 15, 2006
Reply to Office Action of 12/28/2005

REMARKS

Claims 1-20 and 22 are currently pending. Claims 1-12, 14-20, and 22 are allowed. The Applicant notes that the Examiner indicated that Claims 13-20 are rejected in page 2 of the Office Action, however it is apparent from the Office Action Summary and page 4 of the Office Action that Claims 14-20 are allowed. As noted in the Office Action Response filed Jan. 12, 2005, claim 21 was withdrawn and cancelled.

Applicant wishes to thank the Office the thorough office action and allowance of the claims 1-12, 14-20, and 22. The arguments and amendments herein should place all claims in condition for allowance.

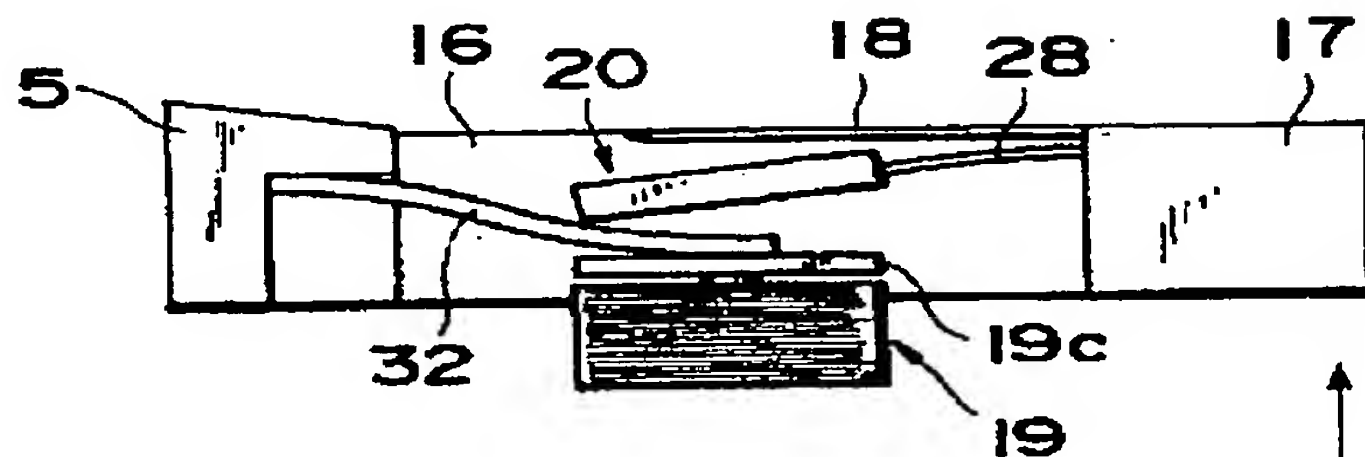
Claim Rejection - 35 USC §103(a)

Claims 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yokomachi et al. (U.S. Pat. No. 5,483,608) in view of Helmer (U.S. Pat. No. 3,885,205). The Applicant respectfully disagrees and requests reconsideration.

As previously noted in the prior Office Action Response, Yokomachi employs an actuator 19, wherein the actuator 19 is driven by coil 19a and is moved upwards/downwards to push the elevating stage 20 from a stowed position (Yokomachi Fig. 15) to the deployed position (Yokomachi Fig. 16). For convenience, Figures 15 and 16 are included here to show that the deployment mechanism from the actuator is up or down movement. The elevating stage 20 is coupled to the stationary body 17 by a leaf spring 28 and the elastic body 32 is an interface between the permanent magnet 19c and the stage 20. The stage 20 resides in the stowed position (Yokomachi Fig. 15) until the actuator 19c pushes the stage 20 upwards using the rod 19b.

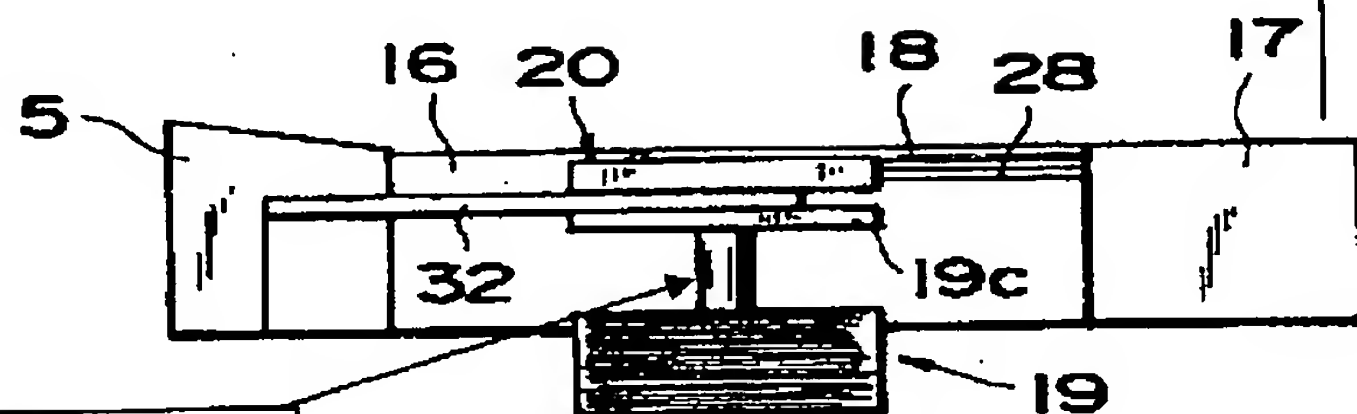
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Fig. 15



Platform 20 moves up/down when pushed by portion 19c.

Fig. 16



Rod 19b – see Fig 4 – moves 19c up/down

In the present application as shown in Fig. 1a which is included herein for convenience, the motor assembly 109 rotates a motor shaft 109a/b and provides a rotational torque that drives the push/pull spring 111 to push/pull the platform 103. The push/pull spring 111 in conjunction with the motor 109 pushes or pulls the platform 103 to the stowed or deployed positions along the pivot axis of rotation 101. Yokomachi does not describe movement of the platform in this fashion.

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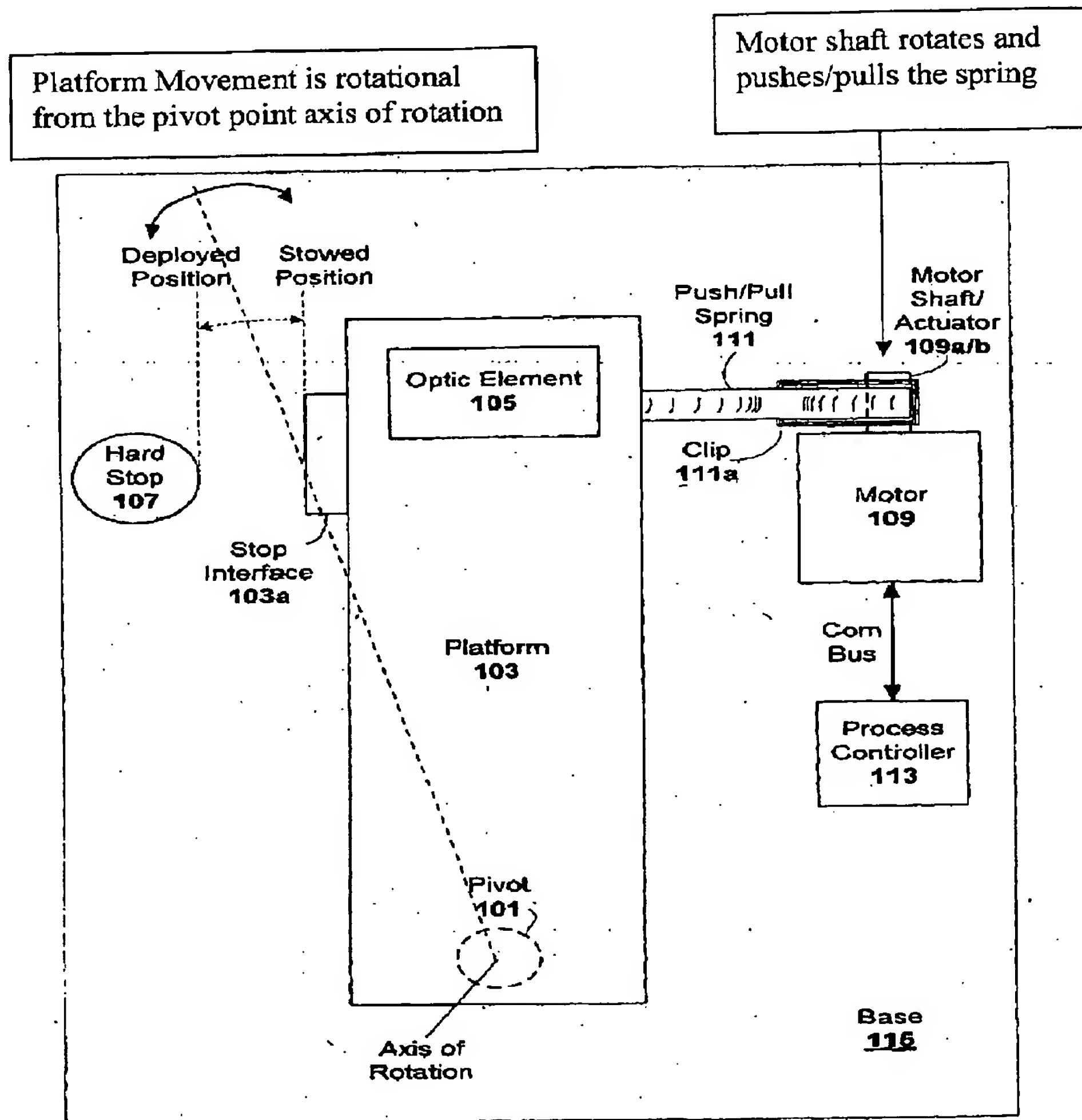


Fig. 1a

The Office states that the Yokomachi elevating stage 20 is rotational from the pivot point axis of rotation. This is not correct. According to Yokomachi Figures 15 and 16, elevating stage 20 is coupled to the stationary body 17 by a leaf spring 28. So when the actuator 19 moves up and down, leaf spring 28 deflects or bends vertically, thereby moving up and down the stage 20. The stage 20, located at the tip of the leaf spring 28, arguably may undergo some slight "tip

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movement" simultaneously with vertical movement as a result of the bending movement of the leaf spring, but this is not "an optic platform that rotationally pivots about an axis of rotation of a pivot point."

Thus, according to the present invention, the platform rotationally pivots about an axis of rotation. Unlike Yokomachi, the platform of the present invention is not attached at the tip of a bendable structure (like a leaf spring), but the entire platform rotates about an axis of rotation. This is different from any "tip movement" occurring at the free end as a result of a bending movement of a cantilever elastic body.

In addition, the Office also tries to equate the push/pull spring of the present invention with the elastic body 32 of Yokomachi. "[T]he elastic body 32 is made of a material having flexibility, e.g., rubber or plastic, to have a plate-like shape. The elastic body 32 projects from the lower surface of the displacement stage 5 opposing the elevating stage 20 to extend in an inclined state such that it flexes only in the vertical direction, and is arranged on the permanent magnet portion 19c of the actuator 19. When the elevating stage 20 is to be moved upward, the elastic body 32 is sandwiched between the lower surface of the elevating stage 20 and the permanent magnet portion 19c, and fixes the position of the displacement stage 5 in the horizontal direction." (Yokomachi Col 15, lines 31-43)

As is readily apparent, the Yokomachi elastic member 32 does not operatively couple the actuating element 19 to the stage 20. The interaction with the stage 20 is caused by the movement of the actuator 19 and when the stage is deployed, the elastic member 32 is just "sandwiched" between the stage 20 and the actuator 19. Furthermore, the elastic member 32 does not preload the stage 20 against a hard stop – the elastic member does not push the stage or place the stage in the preloaded state. While the push/pull spring of the present invention preloads the platform despite opposing forces, the Yokomachi elastic member 32 is just disposed between the stage 20 and the actuator 19. Furthermore, whereas the push/pull spring of the

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present invention not only pushes the platform, but also pulls the platform - there is no such "pull" in the Yokomachi elastic member 32.

Additionally, the Office also tries to equate the permanent magnet portion 19c with a hard stop. The magnet portion 19c, however, is not a hard stop. A hard stop is a fixed component that would stop the movement of the platform, thereby providing accurate and repeatable placement of the platform in its deployed position. Unlike the hard stop of the present invention, the permanent magnet portion 19c in Yokomachi is used for pushing the elevating stage. Neither is the permanent magnet portion 19c a fixed component, nor does it define the deployed position. Hence, the permanent magnet portion 19c in Yokomachi is not a fixed component to stop movement and does not function as a hard stop.

For clarification purposes, Applicant has amended Claim 13 to reflect that there is a motor assembly having an actuator arm operatively coupled to its shaft; and a push/pull spring operatively coupling the platform to the actuator arm of the motor assembly, and adapted to preload the platform against the hard stop, thereby holding the platform in the first position despite opposing forces, wherein the motor assembly rotates and provides a push/pull torque that drives the push/pull spring to push/pull the platform.

For at least these reasons discussed herein, the rejection is traversed and reconsideration and allowance of claim 13 is respectfully requested. As noted, claims 1-12, 14-20, and 22 are already allowed.

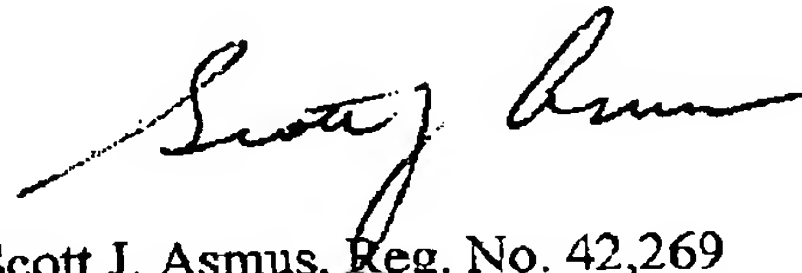
Telephone Interview

Present Office policy places great emphasis on telephone interviews initiated by the examiner. For this reason, it is not even necessary for an attorney to request a telephone interview. However, Applicant would greatly appreciate the opportunity for a telephone interview and feels the call will be beneficial to advance prosecution of the application. MPEP§408.

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Applicant believes the above remarks to be fully responsive to the Office Action, thereby placing this application in condition for allowance. No new matter is added. Applicant requests speedy reconsideration, and further requests that Examiner contact its attorney by telephone, facsimile, or email for quickest resolution, if there are any remaining issues.

Respectfully submitted,



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